

KOENIG SOLUTIONS · COURSE OUTLINE

Agile Software Development with Azure DevOps

Learn to manage Agile software projects with Azure DevOps, from work tracking and version control to continuous integration.

7

MODULES

47

TOPICS

COURSE OVERVIEW

This course covers Agile methodologies and how they map to Azure DevOps, along with the features and editions of the platform. It looks at installing, securing and configuring Azure DevOps projects, including process templates and source control settings. It covers managing work items, backlogs and iterations, maintaining source code with TFVC and Git, and achieving continuous integration through automated builds and testing. It also covers scheduling and monitoring team progress with Kanban boards and burndown charts.

WHO THIS COURSE IS FOR

Scrum Team Members

Software Developers

DevOps Administrators

Project Managers

Test Engineers

LEARNING OBJECTIVES

- Explain Agile and Scrum methodologies and their terms
- Compare Azure DevOps Server, Express and Service editions
- Configure Azure DevOps installations, security and project settings
- Organise backlogs and work items across releases and Sprints
- Apply version control with TFVC and Git in Team Explorer
- Implement continuous integration through automated builds and testing
- Monitor team progress using Kanban boards and burndown charts

7 Modules, 47 Topics

01

Application Lifecycle Management with Azure DevOps

OVERVIEW OF AGILE METHODOLOGIES

Agile · Scrum

02

Introducing Azure DevOps

SURVEYING AZURE DEVOPS FEATURES

- Team collaboration
- Process templates
- Version control
- Automated builds
- Integrated tests

EVALUATING AZURE DEVOPS EDITIONS

- Choosing Azure DevOps Server vs. Azure DevOps Express
- Comparing Azure DevOps Service vs. Azure DevOps Server

03

Administering Azure DevOps

INSTALLING AZURE DEVOPS

- Planning an Azure DevOps installation
- Creating collections with the administrative console
- Managing project security and group membership with the Web control panel

SECURING AZURE DEVOPS PROJECTS

- Assigning permissions to security groups
- Adding users to teams and projects
- Restricting user rights
- Configuring user alerts

CREATING PROJECTS FOR AZURE DEVOPS

- Comparing the built-in Scrum, CMMI and Agile process templates
- Specifying source control
- Customising process templates

04

Managing Work with Azure DevOps

MAPPING AZURE DEVOPS AND AGILE PROCESS TERMS

- Defining epics and user stories as Azure DevOps work items
- Inputting features and backlog items
- Estimating and prioritising work items
- Breaking backlog items into tasks

ORGANISING BACKLOGS

- Scheduling start and end dates for releases and Sprints
- Assigning backlog items to iterations and team members
- Recording work remaining and status
- Monitoring team progress

05

Maintaining Source Code with Version Control

COLLABORATING ON CODE WITH TEAM FOUNDATION VERSION CONTROL (TFVC) AND GIT

- Selecting centralised vs. distributed version control
- Synchronising local repositories with the master repository
- Viewing project history with changesets

CONNECTING TO AZURE DEVOPS FROM VISUAL STUDIO TEAM EXPLORER

- Checking out and checking in source code
- Merging changesets from multiple developers
- Branching for release management and maintenance
- Resolving multi-user conflicts
- Adding existing code to Azure DevOps source control

INTEGRATING VERSION CONTROL WITH CLIENT APPLICATIONS

- Plugging TFVC into Windows Explorer

06

Achieving Continuous Integration

CREATING, RUNNING AND AUTOMATING BUILDS

- Defining and scheduling builds
- Managing releases and deployments
- Controlling build output

CRAFTING QUALITY SOFTWARE THROUGH CONTINUOUS TESTING

- Integrating unit testing into builds
- Leveraging Visual Studio code analysis and testing tools
- Creating TFS test scripts for manual testing
- Documenting and tracking bugs

07

Scheduling and Monitoring Team Progress

MANAGING BACKLOGS AND QUERYING AZURE DEVOPS CONTENT

- Assigning work to iterations
- Querying and defining iteration backlogs
- Visualising work-in-progress with Kanban boards
- Monitoring progress with burndown charts

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

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